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THE DEFENSES OF THE SOVIET ORBIT

- I. In building up Soviet military might the leaders of the Kremlin have built powerful defenses besides threatening the free world with offensive potential.
 - A. Because of the threat of strategic bombing, the Soviet Union has directed a large proportion of its military effort since World War II toward developing an effective air defense system.
 - B. At the same time Soviet ground forces have been maintained in a high state of readiness and are deployed either for possible offensive or defensive operations.
 - C. Significant efforts have been made to modernize and strengthen the Soviet navy but its capabilities are still inferior to those of the army and the air force.

II. Structure of the Soviet Air Defense System

- A. The Soviet air defense system is controlled by the Ministry of Defense through the PVO Strany (Air Defense of the Homeland) and the armed services and their tactical commands.
 1. These two often overlap.
 2. In European Russia, however, the PVO Strany has primary responsibility with personnel and equipment actually assigned by the armed services.
 3. In occupied areas outside the Soviet Union and in outlying portions such as the Soviet Far East, the tactical commanders have sole responsibility.

B. The PVO Strany:

1. In the PVO Strany and directly under the control of its chief are:
 - a. a warning and control organization,
 - b. aviation of fighter defense,
 - c. anti-aircraft artillery.
2. The chief of the PVO Strany is also responsible for coordinating the air defense policies of the army, the navy, the air forces and the Ministry of Interior.
3. In carrying out his mission of providing air defense of the homeland, the chief of the PVO Strany may use all military, police and civil forces.
4. The chief is traditionally a high ranking artillery officer.

C. Tactical Commands.

Each tactical commander is responsible for air defense of his command. The functions of the tactical commander in air defense missions is the same as that of the PVO commander.

III. Air Warning and Control Machinery**A. Regional organization.**

As evolving through successive reorganizations the PVO regions correspond closely to the army's military districts.

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2. The main air defense control center is located in Moscow.

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B. Radar network:

1. An estimated 500 to 600 ground radar sites are believed to be available to the Soviet Bloc; the vast majority of these are of early warning type but since the introduction of Tropic or V-Scan equipment in October 1951 there has been a significant improvement in ground-control intercept capabilities throughout the Soviet Orbit.

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4. Radar coverage along the North Siberian Coast and the Central Asian frontiers is unknown.

5. Important interior areas, notably Moscow, are ringed by additional air warning nets.
7. The radar network is supplemented by a system of visual observers.

IV. Fighter Defense

A. Strength

1. A total of 12,880 fighter aircraft are currently estimated to be available for air defense in the Soviet Orbit. Over 11,000 of these are jet type.
2. Fighter Aviation of Air Defense, the air component of the PVO Strany, has 3,170 jet fighters and 300 piston-driven type.
3. The fighter elements of the tactical air armies and fleet air forces have 6,630 fighter planes of which 5780 are jets.
4. The East European Satellite air forces, whose organization shows a heavy emphasis in fighter units,

have 800 jet fighters and 240 piston aircraft.

5. Communist Air Forces in the China-Manchuria-Korea area have 1660 fighter aircraft. Of these, 1420 are jet planes. Many of these pilots are veterans of the Korean air war.

B. Equipment

1. Large scale production of MIG-15 aircraft has enabled the Soviet Union
 - a. to equip most of its fighter units with jet aircraft,
 - b. to equip the Chinese and North Korean air forces with jet fighters and
 - c. to keep up with losses in the Korean air war, and
 - d. to provide a large number of jet fighters to the East European Satellite air forces.
2. Replacement of the MIG-15 by an improved jet fighter began in August 1952 and has been taking place throughout the Soviet Union since then and may have recently been initiated by Soviet units in Germany and Austria.

C. Coordination of fighter defense

Soviet capabilities to deal with major raids against key targets in the European area have been improved by the establishment of procedures for the coordination of fighter aircraft from the PVO Strany with those of the navy and air force tactical armies within the USSR and

between the tactical air units and the various satellite
fighter units in Eastern Europe.

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V. Anti-aircraft Artillery

Strategic anti-aircraft artillery with heavy, medium, and light guns, radar, searchlights, and barrage balloons is an integral part of the PVO Strategy;

1. Major cities and important installations are heavily defended by AAA:

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2. Units employing AA rockets or guided missiles may also be available;
3. Field armies and navy installations have separate tactical anti-aircraft artillery.

VI. Air Defense Deficiencies

Soviet leaders probably believe that their air defenses have not attained an acceptable level of proficiency.

- A. The principal elements of weakness are:

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1. Lack of a suitable aircraft for all-weather night interception;
2. Lack of operational airborne intercept radar; and limited experience of the mm majority of fighter units in this field;
3. Primary reliance on low frequency radar which is susceptible to jamming;

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VII. Soviet Land and Sea Defenses

A. Orbit Ground Forces

Prior to the development of strategic bombing, defense of European Russia called for primary reliance on large ground forces, seemingly inexhaustible manpower, and utilization of vast space for maneuvers to exhaust the attacker and render him vulnerable to counter-attack. Soviet land defenses continue to depend in large measure on these factors.

1. Soviet Manpower:

- (a) Soviet ground forces have a peace time strength of two and a half million men;
- (b) Within 30 days after E-Day these forces could be expanded to 3,750,000.

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2. Satellite Manpower:

- (a) The European Satellite countries whose military potential has been built up significantly since early 1950 have a total standing army strength of 1,206,000 which could be built up to 2,000,000 by N & 30;

3. Dispositions:**(a) Forward areas:**

- (1) With the collapse of Germany in World War II Soviet land defenses were advanced some 500 miles westward providing a buffer zone extending from the Baltic to the Black Sea;
- (2) A force of 22 line divisions supported by a powerful tactical air force is concentrated in Soviet occupied Germany astride the principal north European plain which is the ~~main~~ ^{principal} military route between Western Europe and the Soviet Union;
- (3) Satellite armies are capable of limited operations in support of a Soviet offensive but in defensive actions might prove unreliable;
- (4) Some 150 line divisions are deployed in the Soviet Union, with major concentrations in the western USSR, the Caucasus and the Soviet Far East. Some forces are deployed

around key areas in other parts of
the Soviet Union.

- (5) 400,000 well-equipped troops of the
Ministry of Interior guard the Soviet
Union's extensive borders and are available
for defensive operations.

B. Soviet orbit naval forces:

1. Aside from a potentially dangerous long-range submarine force, Soviet naval capabilities are largely limited to waters close to home bases.
2. Construction of a number of excellent cruisers and a large number of destroyers in recent years have contributed significantly to development of a very modern surface fleet.
3. Fleet exercises have stressed defense of key naval installations against amphibious attack.
4. Satellite naval strength is of negligible significance.